



PHOTO: DEPARTMENT OF FISH AND GAME

power to restrain the U.S. Bureau of Reclamation from selling the 219,500 acre-feet of Trinity River water so obviously needed for restoration of the basins salmon and steelhead trout resources.

**ACTION:** The Department of Fish and Game should accelerate efforts to restore and maintain salmon and steelhead spawning gravels in the Trinity River below Lewiston; it should seek compensation for this purpose from the federal Central Valley Project because of the damage caused to the spawning grounds from stream flow reductions between 1963 and 1981.

**ACTION:** The Department of Fish and Game should follow through on its commitment to full state funding for the congressionally-authorized Klamath River basin salmon and steelhead trout restoration program. This will assure success of the program and may encourage Congress to authorize similar federal efforts for other areas of need, including the Russian and Eel River basins.

**ACTION:** The Legislature and the Department of Fish and Game must recognize the legitimate rights of the indigenous Indian communities of the Klamath and Trinity rivers basin to be consulted directly concerning conservation and restoration of fish resources to which they have traditional harvesting rights.

## Mattole River, South Fork Eel River, Lower Eel River, and Van Duzen River

### The Setting



The lower Eel River and Mattole River basins are independent of one another, each with its own connection to the sea—but they adjoin each other and have similar salmon and steelhead trout conservation problems and prospects. The lower Eel rises in Mendocino County and includes the South Fork Eel River; they are joined by the Van Duzen River, which rises in Trinity County, at a point south of Fortuna (Humboldt County); from there they flow to the sea just down coast of Humboldt Bay.

The Mattole River meets the sea along California's Lost Coast, southwest of Eureka. Like the Eel, the watershed here has been heavily logged and severely grazed. Torrential rainfall on the soils exposed by these land uses has accelerated the area's naturally high erosion rate.

### The Problems

The U.S. Fish and Wildlife Service estimated the Mattole River's salmon spawning potential in 1960 to be nearly 36,000 adult fish. Redd surveys and carcass counts conducted by watershed restoration workers since 1981 indicate that no more than a few

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hundred spawning pairs of salmon now utilize the river. Steelhead were last introduced into the basin in 1982; augmentation of the silver salmon population has not been attempted since the 1930's. Restoration workers have, however, hatched, reared and released more than 1 50000 juvenile native king salmon each year since 1980.

In sharp contrast to the Mattole River's Lost Coast isolation, the South Fork Eel, lower Eel and Van Duzen rivers are paralleled by roads, including the busy Highway 101. Each fall and winter, they attract tens of thousands of anglers to communities that stretch from Garberville to Eureka. Angling makes a major contribution to the region's economy.

One chronic conservation problem in the lower Eel River involves the vulnerability of spawners to fishermen when stream flow is very low, as it was in the fall and winter of the drought years of 1986 and 1987. While it is awkward to change state fishing regulations once the season has started and fishing plans have been made, restoration of the Eel River's salmon resource requires a creative regulatory approach. The punch card" or report card system shows promise here; this method limits the number of fish an angler may take during the fishing season, as well as the traditional daily limit.

### **New incentives could help restoration**

As elsewhere in the state, salmon and steelhead productivity in the Eel, Van Duzen and Mattole watersheds is diminished by the continuing destruction of stream side, or riparian vegetation. The Advisory Committee

has made a number of recommendations that will assure that greater consideration is given to riparian values by logging operations on private land - which is the major use of the lands within these watersheds.

It will be challenging to find new ways to curb stream damage from livestock operations. Exclosures—fences that keep livestock from trampling streambeds and banks—are costly and deny animals unrestricted access to water. Their success in restoring stream conditions and fish populations has been well-demonstrated throughout the West. A state incentive program, similar to the California Forest Improvement Program, should be crafted to enable ranchers to participate more directly in salmon and steelhead restoration efforts.

### **The Solutions**

**ACTION:** The Department of Fish and Game should analyze the vulnerability of salmon to fishermen especially in the lower Eel River during low stream flow periods. It should recommend regulatory alternatives to the Fish and Game Commission, including the report card program, which will assure appropriate protections for salmon and steelhead spawners against inappropriate harvest.

**ACTION:** The Legislature should expand the California Forest Improvement Program and other programs of watershed protection to encourage California ranchers to include stream protections and salmon and steelhead restoration projects in their rangeland management efforts.

***"Stream protection provisions of the California Forest Practice Act must be strengthened..."***